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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,505	06/04/2001	Hongjie Cao	1928.PC	4692

7590

10/22/2002

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EXAMINER
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YU, GINA C

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 10/22/2002 12

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/873,505

Applicant(s)

CAO ET AL.

Examiner

Gina C. Yu

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**P r i d for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 26-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 22, 2002 has been entered. Claims 26-48 are pending.

### ***Claim Objections***

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 46 in Amendment page 4, line 11 has been renumbered to claim 47.

Claim 47 is objected to because of the following informality: in claim 47 line 1, the term “ (new) “. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "compound" renders claims 26, 32, 39, and 46 vague and indefinite. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). In chemical art, the term "compound" is known as a single species "composed of atoms or ions of two or more elements in chemical combination". See Condensed Chemical Dictionary. See p. 230. The term "compound" in instant claims appear to mean "composition".

Claim 48 is rendered vague and indefinite, as it is not clear whether the claim depends on claim 46 or claim 47. See Claim Objections above. Clarification is requested.

Remaining claims are rejected as depending on indefinite base claims.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 26-28, 39-42, and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eskins et al. (US 5676994) ("Eskins") in view of Macaulay (US 6362146 B1).

Eskins teaches non-separable starch-oil compositions useful for food, agriculture, or pharmaceutical and cosmetic carriers or vehicles. See col. 13, lines 55 – 63; col. 11,

lines 60-66; instant claims 32, 39, 46. The application of the starch-encapsulated actives in cosmetic formulations includes body and hand lotions, cream, and suntan lotion. The applications include medicinal oils, essential oils, and vitamins. See col. 11, lines 60-67; abstract. The invention is said to yield smooth, stable, and nongreasy dispersions in water. See col. 8, line 64 – col. 13, line 21. The examples also illustrate encapsulating soybean oil. See instant claim 40.

It is noted that claims 27 and 41 are product-by-process claims, where only the limitation to the composition itself is given patentable weight. See MPEP § 2113. Eskins nonetheless teaches that the invention is prepared by jet cooking the starch. See col. 8, line 64 – col. 13, line 21.

Eskins fails to teach sunscreen active ingredients.

Macaulay teaches that encapsulated sunscreens are known in the art. See col. 6, lines 4 – 25. The reference further teaches a water-based cleansing composition comprising 2, 5, and 10% of the encapsulated sunscreen actives. See Example 1; instant claims 27 and 42.

Given the general teaching of the cosmetic application of the starch-encapsulated active ingredients in Eskins, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added sunscreen actives in the active ingredients, as motivated by Macaulay, because of the expectation of successfully producing controlled-release sunscreen compositions.

2. Claims 29-31 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eskins and Macaulay as applied to claims 26-28, 39-42, and 46-48

above, and further in view of Ashley ("Sunburn and Sunscreen Preparations", Poucher's Perfumes, Cosmetics, and Soaps) .

Eskins and Macaulay, discussed above, fail to teach the water content in the cosmetic compositions as required by the instant claims.

Ashley teaches various formulations for sunscreen and suntan preparation. See p. 434 – p. 437. Formula 4 and 6 shows cream composition having about 40 and 20 % of water by weight, respectively.

While there is no explicit teaching of using only 10 % of water as in instant claims 29 and 43, it must be noted that differences in concentration generally will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. See MPEP § 2144.05. Since the general conditions of the instant claims are disclosed in Ashley, examiner views that one having ordinary skill in the art would have discovered the optimum or workable ranges by routine experimentation. Lowering the water content in a cosmetic composition would be desirable for formulating the composition more anhydrous.

Given the general teaching of sunscreen composition in the combined references, the skilled artisan would have been further motivated to looked to the prior art such as Ashley for examples of the conventional sunscreen formulations.

3. Claims 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eskins in view of Van Soest (US 6340527 B1) and Fletcher et al. (U.S. Pat. No. 6,261,543 B1) ("Fletcher").

Eskins teaches non-separable starch-oil compositions useful for food, agriculture, or pharmaceutical and cosmetic carriers or vehicles. See col. 13, lines 55 – 63; col. 11, lines 60-66; instant claims 32. The application of the starch-encapsulated actives in cosmetic formulations includes body and hand lotions, cream, and suntan lotion. The applications include medicinal oils, essential oils, and vitamins. See col. 11, lines 60-67; abstract. The invention is said to yield smooth, stable, and nongreasy dispersions in water. See col. 8, line 64 – col. 13, line 21. The examples also illustrate encapsulating soybean oil. See instant claim 40.

It is noted that claim 34 is product-by-process claims, where only the limitation to the composition itself is given patentable weight. See MPEP § 2113. Eskins nonetheless teaches that the invention is prepared by jet cooking the starch. See col. 8, line 64 – col. 13, line 21.

Eskins fails to teach cationic starch.

Van Soest teaches that cationic starch is well known encapsulating material for hydrophobic or water insoluble solid active ingredients. See col. 1, line 36 – col. 2, line 11.

Fletcher et al. teach viscous antiperspirant aqueous emulsions comprising amphoteric or cationic modified starch. See abstract; col. 1, line 7 – col. 35; col. 7, lines 6 – 30. The reference teaches that the compositions exhibit excellent phase stability even in the high concentrated antiperspirant salts in the solution and elevated storage temperature. See col. 2, line 53 - col. 19, line 22.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references by substituting the starch with well-known cationic starch, as suggested by Van Soest and Fletcher, because of the expectation of successfully producing a cosmetic composition with good phase stability.

4. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eskins and Van Soest as applied to claims 32-35 above, and further in view of Ashley.

Eskins, Van Soest, and Fletcher, discussed above, fail to teach the water content of the compositions.

Ashley is discussed above.

Given the general teaching of sunscreen composition in the combined references, the skilled artisan would have been further motivated to look to the prior art such as Ashley for examples of the conventional sunscreen formulations.

### ***Response to Arguments***

Applicant's arguments with respect to claims 26-48 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 703-308-3951.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 703-305-1877. The fax phone



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numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1234.

Gina C. Yu  
Patent Examiner  
October 18, 2002



SREENI PADMANABHAN  
PRIMARY EXAMINER

10/21/02